

WHAT IS CLAIMED IS:

A method for securely communicating via a network comprising:

receiving an input from a network multiplexer operable to identify an algorithm associated with a communication module;

processing information communicated between the communication module and the multiplexer using the network multiplexer using the identified algorithm.

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- The method of Claim 1, further comprising 2. communicating an instruction to the communication module operable to identify the algorithm.
- The method of Claim 2, further comprising: 15 3. receiving the instruction identifying the algorithm at the communication module; and providing secure communication using the identified algorithm.

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The method of Claim 1, further comprising: 4. providing a database associated with a central office; and

providing reference information associated with 25 the network multiplexer in the database.

The method of Claim 4, further comprising: 5. determining subscribers and associated communication modules for the network multiplexer; and updating the database based on the determined subscribers and communication modules.

- 6. The method of Claim 5, further comprising updating the database using information associated with a new communication module.
- 7. The method of Claim 6, further comprising identifying an algorithm associated with the new communication module.
- 10 8. The method of Claim 4, further comprising: updating the database associated with the central office; and synchronizing the central office database with a database operably associated with the network multiplexer. 15
- The method of Claim 8, further comprising: identifying communication modules associated with the network multiplexer; and 20 updating the network multiplexer database with reference information from the identified communication modules.
- The method of Claim 1, further comprising: 10. 25 determining a communication session between the communication module and the network multiplexer; and processing information to provide the secure communication in response to determining the session.

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11. The method of Claim 1, further comprising: determining the algorithm operable to provide the secure communication;

communicating the algorithm to the

5 communication module; and

storing the algorithm within a memory associated with the communication module.

12. A device operable to provide secure communication of information via a high speed network comprising:

a DSL modem operable to communicate with a DSLAM; and

a security module coupled to the DSL modem, the security module operable to provide secure communication of information between the DSL modem and the network DSLAM.

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13. The device of Claim 12, wherein the security module comprises an algorithm operable to provide secure communication of information between the security module and the DSLAM.

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14. The device of Claim 12, further comprising the DSL modem operable to receive an instruction from the DSLAM identifying an algorithm for use by the security module.

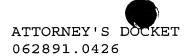
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- 15. The device of Claim 12, wherein DSLAM comprises a reference operable to identify an algorithm associated with the DSL modem.
- 25 16. The device of Claim 12, wherein DSLAM comprises a DSLAM database operable to identify DSL modems operably associated with the DSLAM.
- 17. The device of Claim 16, wherein DSLAM database 30 comprises subscriber information associated with the DSL

modems, the subscriber information including session information.

- 18. The device of Claim 12, wherein DSLAM is operably coupled to a central office, the central office including a central office database including DSLAM information and DSL subscriber information.
- 19. The device for Claim 12, further comprising 10 memory operably coupled to the security module, the memory operable to store an algorithm communicated to the DSL modem.

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20. A device for providing secure communication of information via a network comprising:

means for identifying an algorithm operable to provide the secure communication between a network multiplexer and a communication module; and

means for processing information communicated between the communication module and the network multiplexer using the algorithm.

10 21. The device of Claim 20, further comprising:

means for determining the algorithm using the network multiplexer; and

means for communicating an instruction to the communication module to identify the algorithm.

22. The device of Claim 21, further comprising:
 means for receiving the instruction identifying
the algorithm at the communication module; and
 means for providing the secure communication
based on the identified algorithm.

- 23. The device of Claim 20, further comprising:

 means for providing a database associated with
 a central office; and
- means for providing the database with reference information associated with the network multiplexer.



24. A medium including encoded logic for providing secure communication of information comprising the logic operable to:

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identify an algorithm operable to provide a secure communication between a network multiplexer and a communication module; and

process information communicated between the communication module and the multiplexer using the algorithm.

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25. The medium of Claim 24, further comprising the logic operable to:

receive an instruction identifying the algorithm; and

- provide the secure communication based on the identified algorithm.
 - 26. The medium of Claim 24, further comprising the logic operable to:

determine a communication session between the communication module and the network multiplexer; and

process information to provide the secure communication in response to determining the communication session.

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27. The medium of Claim 24, further comprising the logic operable to:

receive the algorithm operable to provide the secure communication; and

store the algorithm within a memory associated with the communication module.